

SENATE, No. 635

STATE OF NEW JERSEY 219th LEGISLATURE

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SYNOPSIS

Requires water purveyors to conduct water loss audits.

CURRENT VERSION OF TEXT

Introduced Pending Technical Review by Legislative Counsel.



1 AN ACT concerning water supplies, amending R.S.48:2-23, and
2 amending and supplementing P.L.1981, c.262.

3
4 **BE IT ENACTED** by the Senate and General Assembly of the State
5 of New Jersey:

6
7 1. R.S.48:2-23 is amended to read as follows:

8 48:2-23. a. The board may, after public hearing, upon notice, by
9 order in writing, require any public utility to furnish safe, adequate
10 and proper service, including furnishing and performance of service
11 in a manner that tends to conserve and preserve the quality of the
12 environment and prevent the pollution of the waters, land and air of
13 this State, and including furnishing and performance of service in a
14 manner which preserves and protects the water quality of a public
15 water **[supply]** system, and to maintain its property and equipment
16 in such condition as to enable it to do so.

17 The board may, pending any such proceeding, require any public
18 utility to continue to furnish service and to maintain its property and
19 equipment in such condition as to enable it to do so.

20 The board, in requiring any public water utility to furnish safe,
21 adequate and proper service, may require the public water utility to
22 retain in its rate base any property which the board determines is
23 necessary to protect the water quality of a public water **[supply]**
24 system.

25 b. Each public water utility shall provide the board with a
26 completed and validated water loss audit report pursuant to section
27 7 of P.L. , c. (C.) (pending before the Legislature as this
28 bill).

29 (cf: P.L.1988, c.163, s.5)

30
31 2. Section 3 of P.L.1981, c.262 (C.58:1A-3) is amended to read
32 as follows:

33 3. As used in the provisions of P.L.1981, c.262 (C.58:1A-1 et
34 **[seq.] al.**), P.L.1993, c.202 (C.58:1A-7.3 et al.) and P.L.2003,
35 c.251 (C.58:1A-13.1 et al.):

36 "Aquaculture" means the propagation, rearing and subsequent
37 harvesting of aquatic organisms in controlled or selected
38 environments, and the subsequent processing, packaging and
39 marketing, and shall include, but need not be limited to, activities to
40 intervene in the rearing process to increase production such as
41 stocking, feeding, transplanting, and providing for protection from
42 predators. "Aquaculture" shall not include the construction of
43 facilities and appurtenant structures that might otherwise be
44 regulated pursuant to any State or federal law or regulation.

EXPLANATION – Matter enclosed in bold-faced brackets **[thus]** in the above bill is
not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

- 1 "Aquatic organism" means and includes, but need not be limited
2 to, finfish, mollusks, crustaceans, and aquatic plants which are the
3 property of a person engaged in aquaculture.
- 4 **【a.】** "Commissioner" means the Commissioner of **【the**
5 Department of**】** Environmental Protection or the commissioner's
6 designated representative **【;】** .
- 7 **【b.】** "Consumptive use" means any use of water diverted from
8 surface or ground waters other than a nonconsumptive use as
9 defined in this section **【;】** .
- 10 "Data validity score" means the assessment of the quality of data
11 used in a water loss audit report in accordance with the data validity
12 scoring system of the American Water Works Association.
- 13 **【c.】** "Department" means the Department of Environmental
14 Protection **【;】** .
- 15 **【d.】** "Diversion" means the taking or impoundment of water
16 from a river, stream, lake, pond, aquifer, well, other underground
17 source, or other water body, whether or not the water is returned
18 thereto, consumed, made to flow into another stream or basin, or
19 discharged elsewhere**【;】** .
- 20 "Level one validation" means the process whereby a water
21 purveyor interacts with a technical expert to review and confirm the
22 basis of all data entries in the water purveyor's water loss audit
23 report and to appropriately characterize the data validity score of
24 the reported data.
- 25 **【e.】** "Nonconsumptive use" means the use of water diverted
26 from surface or ground waters in such a manner that it is returned to
27 the surface or ground water at or near the point from which it was
28 taken without substantial diminution in quantity or substantial
29 impairment of quality **【;】** .
- 30 **【f.】** "Person" means any individual, corporation, company,
31 partnership, firm, association, owner or operator of a **【water supply**
32 **facility】** public water system, political subdivision of the State and
33 any state, or interstate agency or Federal agency **【;】** .
- 34 "Public water system" means a system for the provision to the
35 public of water for human consumption through pipes or other
36 constructed conveyances, if such system has at least 15 service
37 connections or regularly serves an average of at least 25 individuals
38 daily at least 60 days out of the year. "Public water system"
39 includes: (1) any collection, treatment, storage and distribution
40 facilities under control of the operator of such system and used
41 primarily in connection with such system; and (2) any collection or
42 pre-treatment storage facilities not under such control which are
43 used primarily in connection with such system.
- 44 **【g.】** "Waters" or "waters of the State" means all surface waters
45 and ground waters in the State;

1 h.】 "Safe or dependable yield" or "safe yield" means that
2 maintainable yield of water from a surface or ground water source
3 or sources which is available continuously during projected future
4 conditions, including a repetition of the most severe drought of
5 record, without creating undesirable effects, as determined by the
6 department [;】 。

7 【i. "Aquaculture" means the propagation, rearing and
8 subsequent harvesting of aquatic species in controlled or selected
9 environments, and the subsequent processing, packaging and
10 marketing, and shall include, but need not be limited to, activities to
11 intervene in the rearing process to increase production such as
12 stocking, feeding, transplanting, and providing for protection from
13 predators. "Aquaculture" shall not include the construction of
14 facilities and appurtenant structures that might otherwise be
15 regulated pursuant to any State or federal law or regulation;

16 j. "Aquatic organism" means and includes, but need not be
17 limited to, finfish, mollusks, crustaceans, and aquatic plants which
18 are the property of a person engaged in aquaculture;

19 k.】 "Six Mile Run Reservoir Site" means the land acquired by
20 the State for development of the Six Mile Run Reservoir in Franklin
21 Township, Somerset County, as identified by the Eastern Raritan
22 Feasibility Study and the New Jersey Statewide Water Supply Plan
23 prepared and adopted by the department pursuant to section 13 of
24 P.L.1981, c.262 (C.58:1A-13).

25 "Water loss" means the difference between the annual volume of
26 water entering a water distribution system and the annual volume of
27 metered and unmetered water taken by registered customers, the
28 water purveyor, and others who are implicitly or explicitly
29 authorized to do so pursuant to a permit issued by the department,
30 and includes the annual volume lost through breaks, leaks, and
31 overflows on mains, service reservoirs, and service connections, up
32 to the point of customer metering, in addition to unauthorized
33 consumption, metering inaccuracies, and systemic data handling
34 errors.

35 "Water purveyor" means any person that owns or operates a
36 public water system.

37 "Waters" or "waters of the State" means all surface waters and
38 ground waters in the State.

39 (cf: P.L.2003, c.251, s.1)
40

41 3. Section 9 of P.L.1981, c.262 (C.58:1A-9) is amended to read
42 as follows:

43 9. The Board of 【Regulatory Commissioners】 Public Utilities
44 shall fix just and reasonable rates for any public water 【supply】
45 system subject to its jurisdiction, as may be necessary for that
46 system to comply with an order issued by the department or the

1 terms and conditions of a permit issued pursuant to P.L.1981, c.262
2 (C.58:1A-1 et al.) or P.L.1993, c.202 (C.58:1A-7.3 et al.).
3 (cf: P.L.1993, c.202, s.8)
4

5 4. Section 14 of P.L.1981, c.262 (C.58:1A-14) is amended to
6 read as follows:

7 14. a. **【When】** Whenever the department determines that the
8 developed water supply available to a water purveyor is inadequate
9 to service its users with an adequate supply of water under a variety
10 of conditions, the department may order the water purveyor to
11 develop or acquire, within a reasonable period of time, additional
12 water supplies sufficient to provide that service.

13 b. The Division of Local Government Services in the
14 Department of Community Affairs shall, when reviewing the annual
15 budget of any municipality, county, or agency thereof which
16 operates a public water **【supply】** system, certify that an amount
17 sufficient to cover the cost of any order issued to the **【municipality,**
18 **county or agency thereof】** water purveyor pursuant to subsection a.
19 of this section is included in that annual budget.

20 (cf: P.L.1981, c.262, s.14)
21

22 5. Section 15 of P.L.1981, c.262 (C.58:1A-15) is amended to
23 read as follows:

24 15. The department may:

25 a. Perform any and all acts and issue such orders as are
26 necessary to carry out the purposes and requirements of P.L.1981,
27 c.262 (C.58:1A-1 et al.) or P.L.1993, c.202 (C.58:1A-7.3 et al.);

28 b. Administer and enforce the provisions of P.L.1981, c.262
29 (C.58:1A-1 et al.) or P.L.1993, c.202 (C.58:1A-7.3 et al.) and rules,
30 regulations and orders adopted, issued or effective thereunder;

31 c. Present proper identification and then enter upon any land or
32 water for the purpose of making any investigation, examination or
33 survey contemplated by P.L.1981, c.262 (C.58:1A-1 et al.) or
34 P.L.1993, c.202 (C.58:1A-7.3 et al.);

35 d. **【Subpena】** Subpoena and require the attendance of
36 witnesses and the production by them of books and papers pertinent
37 to the investigations and inquiries the department is authorized to
38 make under P.L.1981, c.262 (C.58:1A-1 et al.) or P.L.1993, c.202
39 (C.58:1A-7.3 et al.), and examine them and those public records as
40 shall be required in relation thereto;

41 e. Order the interconnection of public water **【supply】** systems,
42 whether in public or private ownership, whenever the department
43 determines that the public interest requires that this interconnection
44 be made, and require the furnishing of water by means of that
45 public water system to another public water system, but no order
46 shall be issued before comments have been solicited at a public
47 hearing, notice of which has been published at least 30 days before

1 the hearing, in one newspaper circulating generally in the area
2 served by each involved public water **【supply】** system, called for
3 the purpose of soliciting comments on the proposed action.

4 f. Order any person diverting water to improve or repair its
5 water supply facilities so that water loss is eliminated so far as
6 practicable, safe yield is maintained and the drinking water quality
7 standards adopted pursuant to the "Safe Drinking Water Act,"
8 P.L.1977, c.224 (C.58:12A-1 et al.) are met;

9 g. Enter into agreements, contracts, or cooperative
10 arrangements under such terms and conditions as the department
11 deems appropriate with other states, other State agencies, federal
12 agencies, municipalities, counties, educational institutions,
13 **【investor-owned water companies, municipal utilities authorities,】**
14 water purveyors, or other organizations or persons;

15 h. Receive financial and technical assistance from the federal
16 government and other public or private agencies;

17 i. Participate in related programs of the federal government,
18 other states, interstate agencies, or other public or private agencies
19 or organizations;

20 j. Establish adequate fiscal controls and accounting procedures
21 to assure proper disbursement of and accounting for funds
22 appropriated or otherwise provided for the purpose of carrying out
23 the provisions of P.L.1981, c.262 (C.58:1A-1 et al.) or P.L.1993,
24 c.202 (C.58:1A-7.3 et al.);

25 k. Delegate those responsibilities and duties to personnel of the
26 department as deemed appropriate for the purpose of administering
27 the requirements of P.L.1981, c.262 (C.58:1A-1 et al.) or P.L.1993,
28 c.202 (C.58:1A-7.3 et al.);

29 l. Combine permits issued pursuant to P.L.1981, c.262
30 (C.58:1A-1 et al.) or P.L.1993, c.202 (C.58:1A-7.3 et al.) with
31 permits issued pursuant to any other act whatsoever whenever that
32 action would improve the administration of those acts;

33 m. Evaluate and determine the adequacy of ground and surface
34 water supplies and develop methods to protect aquifer recharge
35 areas.

36 (cf: P.L.1993, c.202, s.9)

37
38 6. (New section) a. No later than 18 months after the date of
39 enactment of P.L. , c. (C.) (pending before the Legislature
40 as this bill), the department shall adopt, pursuant to the
41 "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.),
42 rules and regulations concerning water loss audits. The rules and
43 regulations shall be based on the most current edition of the American
44 Water Works Association's "Water Audits and Loss Control
45 Programs, Manual M36" and its associated Free Water Audit
46 Software. The rules and regulations shall include, but need not be
47 limited to:

- 1 (1) the conduct of annual standardized water loss audits by
2 water purveyors;
- 3 (2) the process for level one validation of a water loss audit
4 report prior to its submittal to the department;
- 5 (3) the technical qualifications required of a person to engage in
6 level one validation;
- 7 (4) the certification requirements for a person selected by a
8 water purveyor to provide level one validation of its own water loss
9 audit report;
- 10 (5) the method and process for submittal of a water loss audit
11 report to the department; and
- 12 (6) procedures for the voluntary submittal of a water loss audit
13 report by a water purveyor who regularly serves fewer than 3,300
14 individuals.
- 15 b. The department shall update the rules and regulations
16 adopted pursuant to subsection a. of this section no later than one
17 year after the release of any subsequent editions of the American
18 Water Works Association's "Water Audits and Loss Control
19 Programs, Manual M36."
20
- 21 7. (New section) a. (1) No later than 24 months after the date
22 of enactment of P.L. , c. (C.) (pending before the
23 Legislature as this bill), each water purveyor who regularly serves
24 3,300 or more individuals shall submit to the department a
25 completed and validated water loss audit report for the previous
26 calendar year as prescribed by the department pursuant to the rules
27 and regulations adopted pursuant to section 6 of P.L. ,
28 c. (C.) (pending before the Legislature as this bill).
- 29 (2) Annually thereafter, each water purveyor required to submit
30 a water loss audit report pursuant to paragraph (1) of this subsection
31 shall submit a completed and validated water loss audit report
32 covering the previous calendar year on or before July 1, or such
33 earlier date as may be established by the department.
- 34 b. Each water loss audit report submitted to the department
35 shall:
- 36 (1) include the name and technical qualifications of the person
37 who conducted the level one validation;
- 38 (2) be attested to by the chief financial officer, chief engineer,
39 or general manager of the water purveyor; and
- 40 (3) be accompanied by information, in a form specified by the
41 department, identifying the steps taken by the water purveyor in the
42 preceding year to reduce the volume of apparent and real water
43 losses.
- 44 c. The department shall deem incomplete and return to a water
45 purveyor any water loss audit report found by the department to be
46 incomplete, not validated, unattested, or incongruent with known
47 characteristics of water system operations. A water purveyor shall
48 resubmit to the department a revised water loss audit report within

1 90 days after an audit has been returned by the department pursuant
2 to this subsection.

3 d. The department shall post all validated water loss audit
4 reports on its internet website in a manner that allows for
5 comparisons across water purveyors. The department shall make
6 the validated water loss audit reports available for public viewing in
7 a timely manner after their receipt.

8
9 8. (New section) No sooner than 36 months and no later than
10 48 months after the date of enactment of P.L. , c. (C.)
11 (pending before the Legislature as this bill), the department, taking
12 into consideration the level one validated water loss audit reports
13 received by the department, shall adopt, pursuant to the
14 “Administrative Procedure Act,” P.L.1968, c.410 (C.52:14B-1 et seq.),
15 rules and regulations:

16 a. specifying a minimum data validity score or a specific level
17 of yearly improvement in the data validity score of future annual
18 water loss audit reports; and

19 b. setting forth performance standards to be met by a water
20 purveyor concerning the volume of water losses.

21
22 9. (New section) The department shall provide technical
23 assistance to instruct water purveyors concerning:

24 a. the American Water Works Association’s “Water Audits and
25 Loss Control Programs, Manual M36” methodology, data tracking,
26 and use of the associated Free Water Audit Software; and

27 b. available water loss reduction programs, including, but not
28 limited to, metering techniques including testing, repair, and
29 replacement, pressure management techniques, condition-based
30 assessment techniques for transmission and distribution pipelines,
31 and active leak detection.

32
33 10. This act shall take effect immediately.

34 35 36 STATEMENT

37
38 This bill would amend and supplement the “Water Supply
39 Management Act” to require the State’s water purveyors (i.e.,
40 public and private water providers) who regularly serve at least
41 3,300 individuals to conduct annual water loss audits.

42 All water systems experience some amount of water loss; it may
43 be from leakage in old infrastructure or metering errors. Validated
44 water losses are a key step towards achieving cost-effective
45 reductions in water loss. “Water Loss,” as defined in the bill, refers
46 to the difference between the annual volume of water entering a
47 water distribution system and the annual volume of metered and
48 unmetered water taken by registered customers, the water purveyor,

1 and others who are implicitly or explicitly authorized to do so
2 pursuant to a permit, and includes the annual volume lost through
3 breaks, leaks, and overflows on mains, service reservoirs, and
4 service connections, up to the point of customer metering, in
5 addition to unauthorized consumption, metering inaccuracies, and
6 systemic data handling errors. A water loss audit helps to identify
7 water loss control measures that can conserve water and save
8 money.

9 Specifically, beginning no later than 24 months after the bill is
10 enacted into law, every water purveyor serving at least 3,300
11 individuals would be required to annually submit a water loss audit
12 to the Department of Environmental Protection (DEP). The bill
13 directs the DEP, within 18 months after the bill is enacted into law,
14 to adopt regulations concerning the conduct and validation of water
15 loss audits based on the most current edition of the American Water
16 Works Association's "Water Audits and Loss Control Programs,
17 Manual M36" and its associated Free Water Audit Software. In
18 addition, public water utilities regulated by the Board of Public
19 Utilities would be required to provide the board with a completed
20 and validated water loss audit.

21 The bill also requires the DEP to adopt, no sooner than 36
22 months and no later than 48 months after the date of enactment of
23 the bill into law, regulations: (1) specifying a minimum data
24 validity score or a specific level of yearly improvement in the data
25 validity score of future annual water loss audit reports; and (2)
26 setting forth performance standards to be met by a water purveyor
27 concerning the volume of water losses.

28 The bill also requires the DEP to provide technical assistance to
29 water purveyors concerning: (1) the American Water Works
30 Association's "Water Audits and Loss Control Programs, Manual
31 M36" methodology, data tracking, and use of the associated Free
32 Water Audit Software; and (2) available water loss reduction
33 programs, including, but not limited to, metering techniques
34 including testing, repair, and replacement, pressure management
35 techniques, condition-based assessment techniques for transmission
36 and distribution pipelines, and active leak detection.

37 Lastly, the bill updates the definition section and makes other
38 technical amendments to the "Water Supply Management Act."